Domain Analysis

Mobile phones are a backbone of African Technology with most people being able to own them due to them being more accesible and available at a lower cost. The main aim of this project is to make an AI powered processor that is able to be on a phone at a low cost for the people in more remote so that they are able to check on their health and be able to be more up to date. This is beneficial because not only will it be able to make sure that people in those areas are up to date with their health, it also bridges the gap set by the lack of healthcare infrastructure in those areas except for mobile clinics that mostly deal with more chronic illnesses or diseases. It can also be of great use to the healthcare centre so that it is able to keep up to date progress of patients who may need it.

Since it will mostly be working with healthcare, it should be able to handle tasks such as:

1. Monitoring vital health signs such as: Heart rate, body temperature, steps taken in a day for exercise related activities.

2. Early detection of health anomalies related to the things it is monitoring.

3. Daily data logging for an up to date record of the user's health

4. A means of communication for the users in these communities and people in the healthcare centre so that there's an ability to check on them remotely and be on the lookout in case anomalies occur unexpectedly.

Workload requirements

This code is going to require to be able to handle:

1. Data acquisition-Getting data from sensors (whilst our code simulates readings based on generic numbers that mimic what we are trying)

2. Signal processing- to clean the data and make it more readable

3. AI inference-for the AI to classify the data based on how the ML model has been trained

4. Communication- to be able to send the results to a server.

5. User interaction- Sending these results to the user having been processed and with the necessary message.